## WHAT IS CLAIMED IS:

- A method for immunoisolation of a cell comprising: coating a cell/poly-β-1-4-N-acetylglucosamine species, said cell/poly-β-1-4-N-acetylglucosamine species comprising a poly-β-1-4-N-acetylglucosamine species comprising about 4,000 to about 150,000 N-acetylglucosamine monosaccharides covalently attached in a β-1-4 conformation, free of protein, substantially free of other organic contaminants, substantially free of inorganic contaminants, and having a molecular weight of about 800,000 daltons to about 30 million daltons within with at least one cell is encapsulated, with a coating having a polyelectrolyte charge opposite to the charge of the cell/poly-β-1-4-N-acetylglucosamine species, so that the cell within the cell/poly-β-1-4-N-acetylglucosamine
  species is immunoisolated.
  - 2. The method of claim 1, wherein at least one acetylglucosamine monosaccharide of the poly- $\beta$ -1-4-N-acetylglucosamine species as been deacetylated.

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